

WHAT IS CLAIMED IS:

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1. A network interconnection apparatus for interconnecting a LAN and an ATM network to perform communications, comprising:

routing information managing means for managing routing information of the ATM network;

statistical information managing means for managing statistical information on traffic of the LAN;

QoS setting means for setting QoS which the ATM network ought to guarantee, based on the statistical information;

QoS guarantee determining means for determining based on the routing information whether or not the set QoS can be guaranteed;

QoS adjusting means for adjusting the QoS so that the QoS can be guaranteed, if it is judged that the QoS cannot be guaranteed; and

call connection control means for performing call connection according to the QoS which can be guaranteed.

2. The network interconnection apparatus according to claim 1, wherein said statistical information managing means manages, as the statistical information, a traffic volume which is a sum of frame sizes or a total number of frames within a fixed time interval and which reflects traffic status of the LAN, and an average traffic

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volume thereof.

3. The network interconnection apparatus according to claim 1, wherein said QoS setting means selects a constant transmission rate as service category if a maximum traffic volume is smaller than an augmented average traffic volume, and selects a variable transmission rate as the service category if the maximum traffic volume is greater than the augmented average traffic volume.

10 4. The network interconnection apparatus according to claim 1, wherein said QoS adjusting means adjusts a maximum burst size of QoS whose service category is variable transmission rate and whose maximum cell rate has been judged to be incapable of being guaranteed so that  
15 the QoS can be guaranteed.

5. The network interconnection apparatus according to claim 1, further comprising QoS information notifying means for making notification of QoS information  
20 to outside.

6. The network interconnection apparatus according to claim 1, further comprising route selecting means for selecting a route according to preferential QoS if  
25 there exist a plurality of route options when the call connection is to be performed.

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7. The network interconnection apparatus according to claim 1, which is connected to a maintenance terminal unit for performing maintenance and management.

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8. A network interconnection method for interconnecting a LAN and an ATM network to perform communications, comprising:

managing routing information of the ATM network;  
managing statistical information on traffic of the LAN;

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setting QoS which the ATM network ought to guarantee, based on the statistical information;

determining based on the routing information whether or not the set QoS can be guaranteed;

adjusting the QoS so that the QoS can be guaranteed, if it is judged that the QoS cannot be guaranteed; and

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performing call connection according to the QoS which can be guaranteed.